

REMARKS

Reconsideration of the subject application in view of the present amendment is respectfully requested.

By the present amendment, Claim 1 has been amended.

Based on the foregoing amendments and the following remarks, the application is deemed to be in condition for allowance, and action to that end is respectfully requested.

The Examiner rejected Claim 1 under 35 U.S. §102(a) as being anticipated by Gschwend, et al., U.S. Patent No. 5,213,247 (Gschwend). Claim 1 was also rejected under 35 U.S. §103(a) as being anticipated by Aparacio, Jr. U.S. Patent No. 6,223,963 (Aparacio, Jr.) in view of Gschwend. It is respectfully submitted that Claim 1 is patentable over the cited references.

Specifically, Claim 1 recites a self-actuated pressure control valve connected with the metering chamber for adjusting the amount of fuel that flows from the metering chamber to the combustion chamber. No such valve is disclosed in Gschwend.

Gschwend describes, with reference to Figs. 4 and 5a-5e, a system for feeding gases in a combustion chamber according to which, a gaseous fuel is fed from an apportioning chamber (64) into a metering chamber (67) via an outlet valve (65) and a gas channel (conduit) (66) (Figs. 4, 5b, 5c; column 10, lines 26-31, column 12, lines 47-52). As shown in Fig. 5a, a conduit (81) connects the metering chamber (67) with a cylindrical chamber (72) in which a hollow cylinder (71) is displaceably arranged. The cylinder (71) is provided on its circumference with an annular groove (74a) that communicates, in the position shown in Fig. 5a, the hollow cylinder (71) with a pressure compensation channel (82). In this position of the hollow cylinder 71, the mouth of the conduit (81) is closed.

Upon displacement of the hollow cylinder (71), it moves to a position shown in Fig. 5c, in which the circumferential groove (74a) of the cylinder (71), the mouth of the pressure conduit, and the pressure compensation conduit (82) that communicates with the environment, are partially open. In this position, the pressure in the metering chamber (67) is reduced as soon as the pressure therein becomes equal to the environmental pressure (column 13, lines 18-20).

Upon suction of an air/fuel mixture, when the valve (73) is lifted off its valve seat against the biasing force of the spring (76), the air is aspirated through inlet (80) and inlet region (74) of the hollow cylinder (71), and simultaneously, gas is injected in a suction channel from the metering chamber (67) via the conduit (81), annular groove (74a), and a radial bore (74c).

From the foregoing description, it follows that Gschwend describes a slide valve (73) that in its first position (Figs. 5a, 5b), closes the outlet of the metering chamber conduit (81), in its intermediate position (Fig. 5c) connects the metering chamber conduit (81) with the pressure compensation channel (82) and an air suction channel (74), and in its second position connects the metering chamber conduit (81) only with the air suction channel (74) (Fig. 5d).

As follows from the foregoing discussion, Gschwend discloses an externally controlled valve (71) that adjusts pressure in the metering chamber (67) in accordance with the atmospheric pressure (column 12, lines 11-20). The valve (73) is a simple check valve that blocks the air suction path when the pressure in the combustion chamber is equal to the atmospheric pressure, and opens the air suction path when the pressure in the combustion chamber is

below the atmospheric pressure, providing for flow of the air-fuel mixture into the combustion chamber. Neither the slide valve (71) nor the check valve (73) provides for adjusting the amount of the metered fuel gas.

Gschwend does not disclose or suggests an automatically actuated pressure control valve for adjusting an amount of fuel gas metered by the metered chamber, as recited in Claim 1. In Gschwend, it is the apportioning chamber that provides for a controlled feeding of the gaseous fuel (column 2, lines 5-18).

According to case law, in order to meet a “means-plus-function” limitation, the prior art must (1) perform the identical function recited in the means limitation and (2) perform that function using the structure disclosed in the specification or an equivalent structure. *Cf. Carroll Touch Inc. v. Electro Mechanical Sys. Inc.*, 15 F.3d 1573, 1578 27 USPQ2d 1836, 1840 (Fed. Cir. 1994); *Valmont Indus. Inc. v. Reinke Mfg. Co.*, 983 F2d 1039, 1042 25 USPQ2d 1451, 1454 (Fed. Cir. 1993); *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1580, 12 USPQ2d 1382, 1386 (Fed. Cir. 1989).

In Gschwend, neither the slide valve (71) nor the check valve (73) perform the function of the pressure control valve (53) of Claim 1 (controlling the amount of fuel gas that flows in the combustion chamber). Accordingly, it is respectfully submitted that Gschwend neither anticipated nor makes obvious the present invention, as defined by Claim 1.

Aparacio, Jr. likewise does not disclose the novel features of the present invention. With a metering valve of Aparacio, Jr., there is no need for a metering chamber.

The Court of Appeals for Federal Circuit clearly stated that a modification of a prior art reference would not be obvious unless the prior art suggested the desirability of the modification. *In re Gordon*, 221 U.S.P.Q 1125, 1127 (Fed. Cir. 1984).

The Board of Patent Appeals and Interferences likewise stated that prior art must provide motivation or reason for worker in said art to make necessary changes in reference device, without benefit of appellant's specification, in order to be obvious. *Ex parte Chicago Rawhide Manufacturing Co.* (PO Bd. App. 1984) 223 U.S.P.Q. 351.

It is respectfully submitted that prior art does not provide motivation or reason for modifying Aparacio, Jr. in a manner suggested in the Office Action, nor does prior art suggest the desirability of modifying Aparacio, Jr.

The Office Action does not contain any evidence as to why the modification of Aparacio, Jr. would have been obvious to one of ordinary skill in the art, and what advantages the modification of Aparacio, Jr. in a manner set forth in the Office Action would provide.

The Federal Circuit has held that a claimed invention was not obvious, where “[c]onspicuously missing from [the] record is any evidence, other than the PTO’s speculation (if it be called evidence) that one skilled in the art would have been motivated to make the modification of the prior art “necessary to arrive at the claimed invention.” In re Jones 21 U.S.P.Q. 2d 1941 (Fed. Cir. 1982).

It is a long held view that obviousness should not be read “into an invention on the basis of Applicant’s own statements”, that the prior art must be viewed “without reading into that art Appellant’s teachings”, and that the teachings of the prior art should, “in and of themselves and without the benefits

of Appellant's disclosure (emphasis in the original text) make the invention as a whole, obvious." *In re Sponnoble*, 160 U.S.P.Q. 237, 243 (CCPA 1969). It is respectfully submitted that the teachings of the prior art does not make the present invention, as defined by Claim 1, obvious.

In view of the above, it is respectfully submitted that Claim 1 patentably defines over the prior art and is, therefore allowable.

Claims 2-9 are allowable.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance, and allowance of the application is respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place the case in condition for final allowance, it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the

Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Respectfully Submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on March 25, 2005.

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